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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,168	02/12/2004	Hiroyuki Maruyama	00862.023459	3772

5514 7590 03/20/2006

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NEW YORK, NY 10112

EXAMINER
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ALI, MOHAMMAD M

ART UNIT	PAPER NUMBER
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3744

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/776,168

Applicant(s)

MARUYAMA, HIROYUKI

Examiner

Mohammad M. Ali

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-32 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-14 is/are rejected.
- 7) ☒ Claim(s) 8 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>02/12/04, 03/30/04</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-3, 6, 10, 12-13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanikawa et al., (6,508,695) in view of Gamer (4,430,129). Tanikawa et al., disclose a pure water reusing system comprising a refrigerant supply channel 32/33 through pure water is supplied to a target machine 11/21; and an impurity removing unit disposed in an impurity removing channel/circulating line 55 which is a channel different from the refrigerant (pure water) supply line 32/33; the impurity removing system has a circulating pump 50, resistive meter 9impurity sensor) 53, ultraviolet radiation device 52 and filter 51; the pure water supply system has supply pump 77/83, pure water storage tank 59/40, storage tank 59 is tapered. Tanikawa et al., disclose the invention substantially as claimed as stated above. See Fig.1 and 4, line 6 to column 9, line 50. However, Tanikawa et al., do not disclose a cooling target. Gamer

teaches a cooling target 3 in a water-cooled system for the purpose of cooling an electrical heat-generating device. See Fig. 1 and column 3, lines 43-68. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the pure water reusing system of Tanikawa et al., in view of Gamer such that a cooling target could be provided in order to cool the cooling target by pure water. Regarding claim 12 cooling temperature of a cooling medium is adjusted according to the need of cooling range.

Claims 4- 5, 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanikawa et al., in view of Gamer as applied to claims 1 and 2 above and further in view of Fumio et al., (JP 2000-185203 A). Tanikawa et al., in view of Gamer disclose the invention substantially as claimed as stated above. However Tanikawa et al., in view of Gamer do not disclose deaeration of water. Fumio et al., teach water deaeration in a deaeration device (water tank) 2 by supplying inert gas through a valve V4 for the purpose of water treatment. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the pure water reusing system of Tanikawa et al., in view of Gamer and further in view of Fumio et al., such that a deaeration device could be provided in order to treat the water. Regarding claim 7 and 11 germicidal lamp and dissolved oxygen sensor are known in the water purification system.

***Allowable Subject Matter***


Claims 15-32 are allowed.

Claims 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad M. Ali whose telephone number is (571) 272-4806. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
MOHAMMAD M. ALI  
PRIMARY EXAMINER